UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,417	01/04/2002	Robert S. Gittins	SUN-P5112-PIP	8974

22835 7590 10/18/2004		EXAMINER
PARK, VAUGHAN & FLEMING LLP		LE, DIEU MINH T
508 SECOND STREET		

ART UNIT	PAPER NUMBER
2114	

SUITE 201
DAVIS, CA 95616

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/039,417	GITTINS ET AL.
	Examiner	**Art Unit**	
	Dieu-Minh Le	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _04 January 2002_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-28_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-28_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _04 January 2002_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some * c) ☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is response to the communication filed

on 01/04/02 in application 10/039,417.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published
> under section 122(b), by another filed in the United States before the
> invention by the applicant for patent or (2) a patent granted on an
> application for patent by another filed in the United States before the
> invention by the applicant for patent, except that an international
> application filed under the treaty defined in section 351(a) shall have the
> effects for purposes of this subsection of an application filed in the
> United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English
> language.

3.   Claims 1-28 are rejected under 35 U.S.C. 102(e) as being

anticipate over Talagala et al. (U.S. Patent Publication

2002/0162076 A1 hereafter referred to as Talagala).

As per claim 1:

Talagala explicitly teaches:

- A method for facilitating validation *(i.e., error detection, verification, scrubbing, etc...)* of data retrieved from a secondary storage device *(i.e., plurality of storage device)* [abstract, fig. 1A-1B and 9, col. 2, par. 0016 and col. 5, par. 0051],

comprising:

- receiving a write request to write new data to a block of the secondary storage device [col. 10, claim 1];

- calculating a new checksum value from the new data [col. 10, claim 1];

- retrieving a current checksum value and an old checksum value *(i.e., new checksum and preexisting checksum)* associated with the block of the secondary storage device [col. 10, claim 1];

- performing a checksum write operation *(i.e., comparison operation)* to a validation device to update the current checksum value and the old checksum value [col. 11, claim 1];

- performing a data write operation to the secondary storage device to write the new data to the block of the

secondary storage device *(i.e., __plurality of storage__*

__device)__ [col. 11, claim 3].

As per claims 2-4:

Talagala further teaches:

- if the current checksum value is invalid, which indicates

that the current checksum value has not been written to,

and the old checksum value is similarly invalid, performing

the checksum write operation involves updating the current

checksum value to be the new checksum value [col. 5, par

0052-0054 and col. 11, claims 2-4];

- if the current checksum value is valid and the old

checksum value is invalid, performing the checksum write

operation involves updating the old checksum value to be

the current checksum value, and updating the current

checksum value to be the new checksum value[col. 5, par

0052-0054 and col. 11, claims 2-4];

- if the current checksum value is valid and the old

checksum value is valid, performing the checksum write

operation involves updating the old checksum value to match

data that is presently stored in the block on the secondary

storage device, and updating the current checksum value to

be the new checksum value [col. 5, par 0052-0054 and col.

11, claims 2-4].

As per claim 5:

Talagala further teaches:

- updating the old checksum value to match data that is

presently stored in the block involves: determining whether

the current checksum value or the old checksum value

matches data that is presently stored in the block on the

secondary storage device; and using the matching value to

update the old checksum value [col. 5, par 0052-0054 and

col. 11, claims 2-4].

As per claim 6:

Talagala further teaches:

- receiving a read request to read a second block of data

from the secondary storage device [col. 7, par. 0065 and

col. 11, claim 5];

- performing a data read operation to read the second block

of data from the secondary storage device [col. 10, claim

1];

- calculating a checksum value from the second block of

data [col. 10, claim 1];

- performing a checksum read operation *(i.e., comparison*

operation) to read an existing checksum value for the

second block of data from the validation device [col. 11,

claim 1];

- comparing the calculated checksum value with the existing

checksum value *(i.e., new checksum and preexisting*

checksum); and indicating an error condition if the

calculated checksum value does not match the existing

checksum value [fig. 9, col. 5, par 0052-0054, col. 10,

par. 0084, and col. 11, claims 2-4].

As per claims 7-9:

Talagala further teaches:

- the secondary storage device is a disk drive [col. 10,

claim 1];

- the validation device is separate from the secondary

storage device [col. 11, claim 6];

- the validation device and the secondary storage device

are the same device (i.e., one or more controllers). [col.

11, claim 7];

As per claim 10:

Due to the similarity of claim 10 to claims 1-4, except for
a method for facilitating validation of data retrieved from **a**
disk comprising steps of receiving a write request, calculating
a new checksum, retrieving a current checksum, ect... instead of a
method for facilitating validation of data retrieved from **a**
secondary storage device comprising steps of receiving a write
request, calculating a new checksum, retrieving a current
checksum, ect...therefore, this claim is also rejected under the
same rationale applied against claims 1-4. **In addition, all of
the limitations have been noted in the rejection as per claims
1-4.**

As per claims 11-19:

These claims are the same as per claims 1-9. The only minor
different is that this claim is directed to **computer-readable
storage medium** instead of a method for facilitating validation
of data retrieved from **a** *secondary storage device* comprising
steps of receiving a write request, calculating a new checksum,
retrieving a current checksum, etc... as described in claims 1-9.
Therefore, these claims are also rejected under the same
rationale applied against claims 1-9.

As per claims 20-28:

Due to the similarity of claims 20-28 to claims 1-9, except

for a method for facilitating validation of data retrieved from

a secondary storage device comprising capabilities of receiving

a write request, calculating a new checksum, retrieving a

current checksum, ect... instead of a method for facilitating

validation of data retrieved from **_a secondary storage device_**

comprising steps of receiving a write request, calculating a new

checksum, retrieving a current checksum, ect...therefore, these

claims are also rejected under the same rationale applied

against claims 1-9. **In addition, all of the limitations have**

been noted in the rejection as per claims 1-9.

Conclusion

4.   The prior art made of record and not relied upon is
considered pertinent to applicant's disclosure.

5.   A shortened statutory period for response to this action is
set to expired THREE (3) months, ZERO days from the date of this
letter.   Failure to respond within the period for response will
cause the application to be abandoned. 35 U.S.C. 133.

    Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Dieu-Minh
Le whose telephone number is (703)305-9408 **[NOTE: After**
approximately October 15, 2004, I can be reached at the new
number (571) 272-3660].   The examiner can normally be reached on
Monday - Thursday from 8:30 AM to 6:30 PM.
    If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Robert Beausoliel can
be reached on (703)305-9713.   The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114

DML
10/12/04